

Machine translation of JP11-007243 (Reference 1)

[Claim(s)]

[Claim 1] Are a label attached to goods and it has frequent occurrence color label stencil paper which has at least the quality of frequent occurrence variety entertainments which colors in at least 2 colors according to height of cooking temperature in a layer part, A label which it comes to print by a color for one or more printing to which it colors by different comparatively conspicuous strong mixing colors from a non-highlighted region where a highlighted region which displays merchandise information which wants to emphasize this frequent occurrence color label stencil paper displays other merchandise information, and each merchandise information differs from said strong mixing colors in said highlighted region and a non-highlighted region.

[Claim 2] A label in which a bargain sale price and a bargain sale unit price of goods are printed in claim 1 in said highlighted region.

[Claim 3] A label issuing machine which publishes a label of claim 1 or 2, comprising: A thermal head which heats the surface of said frequent occurrence color label stencil paper and in which it is made to color.

A highlighted region memory measure which memorizes a position and a range of a highlighted region of said frequent occurrence color label stencil paper.

A printed pattern memory measure which memorizes said merchandise information to emphasize, and merchandise information besides the above as a printed pattern.

While controlling said thermal head based on a memory content of said highlighted region memory measure and a printed pattern memory measure, heating a highlighted region of said frequent occurrence color label stencil paper to constant temperature and making it color by said strong mixing colors, A printing control means which heats said printed pattern to a different temperature from said constant temperature, and is printed by a color for said printing.

[Claim 4] In claim 3, have said thermal head, and a heating element of a large number arranged at linear shape said printing control means, A label issuing machine which carries out energization control so that a heater element which prints said printed pattern for a heater element which prints said highlighted region among said heating element groups for every print lines to said constant temperature may be made to generate heat simultaneously to a different temperature from said constant temperature.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the label which displays the information (henceforth "merchandise information") about goods, such as a trade name, a price, and a store name, and the label issuing machine printed on the label.

[0002]

[Description of the Prior Art] Drawing 7 is a figure showing an example of the label for a bargain sale stuck on the goods discounted, for example from the conventional usual selling price, A name of article, a processing date, a best-before date, a unit price, net weight, the selling price before discount, and a bar code have a store name and a black address respectively to the merchandise information viewing area 1 of the middle of white label stencil paper, and are printed again at the store viewing area 2

of the lower berth.

Merchandise information, such as a comment of a "value price" etc. and the selling price after discount, and the frame 30 which encloses these displays are printed in red, and it is constituted by the field (henceforth a "highlighted region") 3 which displays the merchandise information which wants to emphasize the upper row so that this merchandise information to emphasize may be conspicuous.

[0003]Since it is necessary to print by two black and red colors in order to print the above labels for a bargain sale two colors in label stencil paper, it is necessary to use the special label issuing machine which performs heavy printing twice with the label issuing machine for black, and the label issuing machine for red, or can print two black and red colors.

[0004]Then, in order to attain facilitating of the above printing operations, as shown in drawing 8, Prepare the label stencil paper which formed the highlighted region 3A which printed the portion of the upper row of label stencil paper by conspicuous colors, such as yellow, beforehand, and the usual label, As shown in drawing 8 (a), black printing of the merchandise information etc. is carried out, they are used for non-highlighted regions 1 and 2 other than highlighted region 3A, and the label of a discount sales article has some which carry out black printing of the merchandise information which wants to emphasize the usual merchandise information to the non-highlighted regions 1 and 2 simultaneously, and use it for the highlighted region 3A, as shown in drawing 8 (b).

[0005]At the time for a bargain sale, since merchandise information to emphasize is displayed on the highlighted region 3A of a yellow place and is conspicuous, can demonstrate advertising effectiveness, but the label which printed this highlighted region 3A by the conspicuous color. Usually, there is a problem that the merchandise information which the portion of the yellow place of the highlighted region 3A was conspicuous too much, and was displayed on the non-highlighted regions 1 and 2 serves as hindrance which draws a customer's attention, at the time for sale. In order to have canceled this problem, two kinds of label stencil paper, white label stencil paper and the label stencil paper which carried out colored background printing for the highlighted region 3A, needed to be prepared and used properly, and there was a problem that management was troublesome.

[0006]

[Problem(s) to be Solved by the Invention]This invention was made for the purpose of solution of the above technical problems, and frequent occurrence color label stencil paper is used for it, It aims at obtaining the label printed by a color which is different in information to emphasize as merchandise information by one printing operations, or the label in which the highlighted region colored by comparatively conspicuous strong mixing colors, and merchandise information was printed by other colors, and obtaining the label issuing machine which can publish these labels by one printing operation.

[0007]

[Means for Solving the Problem]To achieve the above objects, a label concerning this invention, A highlighted region which displays merchandise information which wants to emphasize frequent occurrence color label stencil paper which has the quality of frequent occurrence variety entertainments which colors in at least 2 colors according to height of temperature on a layer part, It colors by different comparatively conspicuous strong mixing colors from a non-highlighted region which displays other merchandise information, and each merchandise information is printed by emphasis

color and a different color in said highlighted region and a non-highlighted region. According to this label, one printing can perform printing of only merchandise information, or coloring of a highlighted region and printing of merchandise information.

[0008]In said highlighted region, a bargain sale price and a bargain sale unit price of goods can be printed, and, thereby, a customer can recognize a discount rate easily to it.

[0009]A label issuing machine of this invention is characterized by comprising: A thermal head which heats the surface of said frequent occurrence color label stencil paper and in which it is made to color.

A highlighted region memory measure which memorizes a position and a range of a highlighted region of said frequent occurrence color label stencil paper.

A printed pattern memory measure which memorizes said merchandise information to emphasize, and merchandise information besides the above as a printed pattern.

While controlling said thermal head based on a memory content of said highlighted region memory measure and a printed pattern memory measure, heating a highlighted region of said frequent occurrence color label stencil paper to constant temperature and making it color by said strong mixing colors, A printing control means which heats said printed pattern to a different temperature from said constant temperature, and is printed by a color for said printing.

According to this label issuing machine, one printing operations can perform printing of only merchandise information to frequent occurrence color label stencil paper, or coloring of a highlighted region and printing of merchandise information.

[0010]A label issuing machine concerning a desirable embodiment, The thermal head has a heating element of a large number arranged at linear shape, and it said printing control means, Energization control is carried out so that a heater element which prints said printed pattern for a heater element which prints said highlighted region among said heating element groups for every print lines to said constant temperature may be made to generate heat simultaneously to a different temperature from said constant temperature. According to this label issuing machine, coloring of a highlighted region and printing of merchandise information can be easily performed by temperature control of each heating element.

[0011]

[Embodiment of the Invention]Hereafter, the embodiment of this invention is described based on a drawing. Drawing 1 shows two kinds of labels printed with the label issuing machine concerning one embodiment of this invention, drawing 1 (a) is usually a label for sale, and drawing 1 (b) is a label for a bargain sale.

[0012]According to the difference in cooking temperature, the frequent occurrence color label stencil paper which can color selectively in two of black and which yellow, red, and blue colors or more is used for this label issuing machine, and black and yellow 2 coloring label stencil paper 9 is used for it by this embodiment. And at the time of issue of the label for sale (drawing 1 (a)), usually. Heat the surface of 2 coloring label stencil paper 9 to black coloring temperature, carry out black printing only of the merchandise information, and at the time of issue of the label for a bargain sale (drawing 1 (b)). The merchandise information which the portion of 4 d of highlighted regions is made to color in yellow by heating the surface of 2 coloring label stencil paper 9 to yellow coloring temperature, and is printed to the non-highlighted regions 1 and 2, and the information 4a, 4b, and 4c printed to the highlighted region 4 are heated to black coloring temperature, is black and is printed. Thereby, the label for the bargain sale of the conventional example shown in drawing

8(b) and the same label are published, without repeating and printing one printing operation, i.e., the same field. 2 coloring label stencil paper 9 forms the layer part which forms a printing face, or the whole with black coloring substances and yellow coloring substances.

[0013]The perspective view of the measuring printer provided with the label issuing machine which drawing 2 requires for one embodiment of this invention, and drawing 3 are the block diagrams showing the composition of the label issuing machine built in the measuring printer. In drawing 2, the printed information input means 8 and the display 10 which comprised the label printer 6 and a keyboard are stored by body casing A, and the metering installation 5 is arranged ahead of body casing A at it. The metering installation 5 measures the weight of the goods placed on the metering base 50, and outputs it to CPU7 of drawing 3.

[0014]From the weight of the inputted goods, CPU7 controls operation of the label issuing machine 6 whole, compute the selling price, and These data, While developing to the black printed pattern to 2 coloring label stencil paper 9 and displaying the merchandise information as which the name of article etc. which were inputted from the printed information input means 8 were specified, and the information which carries out highlighting on the screen of the display 10, the printed pattern is written in the printed pattern memory measure 11. When the data which specifies the position and range of the highlighted region 4 is inputted, while developing the position and range to a yellow printed pattern and displaying on said printed pattern in piles on the screen of the display 10, the data in which the position and range range are shown is written in the highlighted region memory measure 12.

[0015]The printing control means 13 will control the thermal head 15 of the printer 14 based on the printed pattern memorized by the printed pattern memory measure 11 and the data in which the position and range of the highlighted region 4 memorized by the highlighted region memory measure 12 are shown, if a print command is received from CPU7.

[0016]Drawing 4 is a figure showing the composition of the thermal head 15, and many heater elements r are allocated on a straight line, Because the switch elements Q1-Qn are connected to each heater element r in series, respectively and the printing control means 13 carries out on-off control of each switch elements Q1-Qn. The resistance welding time of each heater element r is controlled, and the cooking temperature of 2 coloring label stencil paper 9 by each heater element r is constituted so that it may be controlled by yellow coloring temperature and black coloring temperature.

[0017]Label roll 17 mechanism appearance of the label sheet 16 of drawing 3 is carried out, it is fed in the direction of arrow b, and heating of one line is simultaneously made in the above-mentioned arrow d direction which agreed in the transverse direction of 2 coloring label stencil paper 9 by the heater element r located in a line in the direction of arrow d of drawing 4 which intersects perpendicularly with this. The feeding operation to the direction of arrow b of 2 coloring label stencil paper 9 is interlocked with, heating per line is performed, and coloring and printing are made by the whole 2 coloring label stencil paper 9. Thus, while heating the portion of the highlighted region 4 of 2 coloring label stencil paper 9 of drawing 1(b) to constant temperature and making it color in yellow, the portion of a printed pattern is heated to a different temperature from said constant temperature, and is made to color black.

[0018]Drawing 5 is a figure showing yellow and the development characteristic of black 2 coloring label stencil paper 9. In a figure, it is cooking temperature, a

horizontal axis colors in yellow, when heated by the temperature T_y , and when heated by temperature T_b higher than the temperature T_y , it colors black.

[0019]When drawing 6 is a figure showing the mode of the energization control signal of switch element Q which controls the resistance welding time of the heater element r of the thermal head 15 of drawing 4 and it makes said 2 coloring label stencil paper 9 color in yellow, When only the time t_y makes switch element Q one, and energizes the current i from the power supply E of drawing 4 and it makes it color black between the one-line printing intervals to decided at intervals of timing signal f of drawing 6, It is controlled by the printing control means 13 of drawing 3 so that only the time t_b longer than the time t_y of drawing 6 makes switch element Q one and energizes the current i from the power supply E of drawing 4. The label shown in drawing 1 (a) or drawing 1 (b) can be published by printing such energization control based on the printed pattern memorized by the data and the printed pattern memory measure 11 of the highlighted region 4 which are memorized by the highlighted region memory measure 12 for every one-line printing interval.

[0020]Although said embodiment showed the example which made the highlighted region 4 color in yellow using yellow and black 2 coloring label stencil paper 9, Like the conventional example shown in drawing 7 using red and black 2 coloring label stencil paper 9, It is also possible by the same energization control as said embodiment to create the label for a bargain sale which was black and printed the merchandise information which prints in red the frame 30 which encloses merchandise information to emphasize and display and its circumference, and is printed to the non-highlighted regions 1 and 2.

[0021]If the frequent occurrence color label stencil paper 9 using the quality of frequent occurrence variety entertainments which colors in three or more colors is used, coloring and printing can be performed by three or more colors.

[0022]Although merchandise information printed to a highlighted region was made into the comment and the price after discount in said embodiment, it may not be restricted to this and they may be a message like "month-long bargain goods", a "figure", an "illustration" in which an origin is shown, etc. Expression which makes it color in meshes of a net or stripe shape besides the thing made to color uniformly, and enclosed the enclosure by the thick black frame further is also possible for a highlighted region.

[0023]

[Effect of the Invention]As explained above, the label concerning this invention, The highlighted region which displays merchandise information to emphasize colors by different comparatively conspicuous strong mixing colors from the non-highlighted region which displays other merchandise information, Since each merchandise information is the label currently printed by a different color from said strong mixing colors, the effect that the label printed by two or more colors is obtained by one printing operation is in said highlighted region and a non-highlighted region.

[0024]While the label issuing machine concerning this invention is provided with the thermal head which heats the surface of said frequent occurrence color label stencil paper and in which it is made to color, heating the highlighted region of frequent occurrence color label stencil paper to constant temperature and making it color by strong mixing colors, Since it constitutes so that said printed pattern may be heated to a different temperature from said constant temperature, it may be made to color by the color for printing and it may print, the label printed by two or more colors can be published by one simple printing operation.